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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.   | CONFIRMATION NO. |
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| 09/681,622      | 05/10/2001  | Peter M. Will        | 06666/033002/USC 2857 | 4658             |

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EXAMINER

SHAFER, RICKY D.

ART UNIT PAPER NUMBER

2872

DATE MAILED: 04/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.  
09/681,622Applicant(s)  
WILL

Examiner

ROSHAFER

Group Art Unit

2872

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 month MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

Responsive to communication(s) filed on 1/27/03

This action is FINAL.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

### Disposition of Claims

Claim(s) 1 - 29 is/are pending in the application.

Of the above claim(s) 4, 6-18, 20-25 AND 27 is/are withdrawn from consideration.

Claim(s) \_\_\_\_\_ is/are allowed.

Claim(s) 1-3, 5, 19, 26, 28 AND 29 is/are rejected.

Claim(s) \_\_\_\_\_ is/are objected to.

Claim(s) \_\_\_\_\_ are subject to restriction or election requirement

### Application Papers

The proposed drawing correction, filed on \_\_\_\_\_ is  approved  disapproved.

The drawing(s) filed on 5/10/01 is/are objected to by the Examiner

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. § 119 (a)-(d)

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

All  Some\*  None of the:

Certified copies of the priority documents have been received.

Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

Copies of the certified copies of the priority documents have been received  
in this national stage application from the International Bureau (PCT Rule 17.2(a))

\*Certified copies not received: \_\_\_\_\_

### Attachment(s)

Information Disclosure Statement(s), PTO-1449, Paper No(s). 4  Interview Summary, PTO-413

Notice of Reference(s) Cited, PTO-892  Notice of Informal Patent Application, PTO-152

Notice of Draftsperson's Patent Drawing Review, PTO-948  Other \_\_\_\_\_

## Office Action Summary

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1. Applicant's election without traverse of Group I (claims 2, 3, 5, 26, 28 and 29) in Paper No. 8 is acknowledged.

2. Claims 6, 7, 22 and 23 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made without traverse in Paper No. 8.

3. Claims 2, 3, 5, 28 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 2, line 1, "said mirror array" lacks proper antecedent basis.

In claim 28, line 1, "said plurality of moving mirrors" lacks proper antecedent basis.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Leddy et al ('493).

Leddy et al discloses an optical device comprising an array of movable reflector (DMD) elements (28) and a controller (not shown) for the array of reflector (mirror) elements which can operate in the digital mode (see column 4, lines 45-52) to change the position of said array of

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reflector (mirror) elements so as to position an output beam to a desirable location. Note Figures 1a and 5a to 12 along with the associated description thereof.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5, 26 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leddy et al ('493) in view of Lin et al ('869).

Leddy et al discloses all of the subject matter claimed, note the above explanation, except for explicitly stating that the array of reflector (mirror) elements having different sizes.

Lin et al teaches it is well known to employ different sizes for reflector (mirror) elements in the same field of endeavor for the purpose of changing the phase of a wave front of a beam.

Therefore, it would have been obvious and/or within the level of one of ordinary skill the art at the time the invention was made to modify the reflector (mirror) elements of Leddy et al to include different sizes, as taught by Lin et al, in order to change the phase of a wave front of a beam so as to increase the processing of information.

7. The disclosure is objected to because of the following informalities: on page 2 of the specification, the brief description of the drawings fail to reference figures 4A, 4B, 5A, 5B, 5C and 5D. Appropriate correction is required.

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8. Claim 29 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

9. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the controller must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

10. Any inquiry concerning this communication should be directed to R.D. Shafer at telephone number (703) 308-4813.

RDS

April 7, 2003

*R.D. Shaf*  
RONALD D. SHAFFER  
PATENT EXAMINER  
ART UNIT 2872